

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No.

**MAILED**

**MAR 29 2004**

U.S. PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

*Ex parte* KURT HOFFMAN, HEINZ HERBST and RUDOLF PFAENDNER

Appeal No. 2004-0824  
Application 09/879,422

ON BRIEF

Before OWENS, DELMENDO and PAWLIKOWSKI, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

*DECISION ON APPEAL*

This appeal is from a rejection of claims 21-23 and 26-30. Claims 24 and 25, which are all of the other claims pending in the application, stand withdrawn from consideration by the examiner as being directed toward a nonelected invention.

### THE INVENTION

The appellants claim low-dust granules of plastic additives comprising solid epoxides. Claim 21 is illustrative:

21. Low-dust granules of plastics additives having a particle size distribution of between 1 mm and 6 mm as defined in accordance with ISO 3435 and a loose bulk density of greater than 500 g/l comprising

a) a phenolic antioxidant, an organic phosphite or phosphonite, a phosphonate, a sterically hindered amine or a UV absorber, individually, or a mixture of these compounds and

b) 10-90% by weight of at least one bisphenol A diglycidyl ether, which granules are prepared by a process which comprises heating

a) a phenolic antioxidant, an organic phosphite or phosphonite, a phosphonate, a sterically hindered amine or a UV absorber, individually, or a mixture of these compounds, and

b) at least one at least one [sic] bisphenol A diglycidyl ether which is solid at room temperature,

to an extent such that at least 80% by weight of the bisphenol A diglycidyl ether has melted, pressing the melt through a plate provided with dies or perforations, the die or perforation diameter being between 1 and 10 mm, and chopping the resulting strands in the plastic state to form granules,

wherein the temperature before the outlet die (at the die head) is between 60-160°C.

### THE REFERENCES

Molenaar et al. (Molenaar)	4,446,086	May 1, 1984
Argus Chemical Corp. (GB '637)	1 358 637	Jul. 3, 1974
(Great Britain patent specification)		
Ciba-Geigy AG (PCT '377)	WO 94/29377	Dec. 22, 1994
(PCT application)		

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Ciba-Geigy AG (EP '824) EP 0 719 824 A2 Jul. 3, 1996  
(European patent application)

#### THE REJECTION

Claims 21-23 and 26-30 stand rejected under 35 U.S.C. § 103 as being unpatentable over the combined teachings of Molenaar, EP '824, PCT '377 and GB '637.

#### OPINION

We affirm the aforementioned rejection.

The appellants state that the claims stand or fall together (brief, page 3). We therefore limit our discussion to the sole independent claim, i.e., claim 21. See *In re Ochiai*, 71 F.3d 1565, 1566 n.2, 37 USPQ2d 1127, 1129 n.2 (Fed. Cir. 1995); 37 CFR § 1.192(c)(7)(1997).

EP '824 discloses low-dust granules of plastics additives having a particle size distribution, in accordance with ISO 3435, of 1-10 mm and a loose bulk density preferably greater than 500 g/l (page 2, lines 35-38 and 54). The additives include sterically hindered phenols, organic phosphites and phosphonites, and UV absorbers, and generally are solids (page 3, lines 12, 24 and 45-49; page 24, line 58). The granules preferably are made by extruding a melt using an extruder having a nozzle or hole diameter preferably of 2-6 mm and having a temperature above

130°C at at least one point therein, and chopping the extrudate into granules (page 3, lines 16-17, 21, 24-27, 33-37 and 41-42).

EP '824 does not disclose a solid bisphenol A diglycidyl ether in the list of additives. However, the teachings that the granules can contain other plastics additives which are known per se, and that these additives generally are in the form of solids (page 3, lines 10-13 and 24), would have motivated one of ordinary skill in the art to use known solid additives for the types of plastics with which the EP '824 granules can be used. PCT '377 discloses that a solid bisphenol A diglycidyl ether is useful in an amount of 0.05-20 wt% as a stabilizer for recycled plastics including polyolefins, polystyrene, polyesters, polyvinyl chloride and acrylonitrile-butadiene-styrene (page 1, 2, 5, 21 and 22). EP '824 is silent as to whether the plastics are virgin or recycled, but teaches that plastics having the compositions of the above-listed PCT '377 plastics are among the plastics with which the EP '824 granules can be used (page 29, line 45 - page 32, line 16). One of ordinary skill in the art, therefore, would have had a reasonable expectation of success in using the PCT '377 solid bisphenol A diglycidyl ether stabilizer with the EP '824 plastics. Hence, EP '824 and PCT '377 would have rendered *prima facie* obvious, to one of ordinary skill in

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the art, the product claimed in the appellants' claim 21.<sup>1</sup> See *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988).

The appellants argue that there is no motivation to combine EP '824 and PCT '377 (reply brief, page 3). That motivation would have been to provide a solid bisphenol A diglycidyl ether as a stabilizer for the EP '824 plastics as discussed above.

The appellants, therefore, have not effectively rebutted the *prima facie* case of obviousness of the claimed invention. Accordingly, we conclude that the appellants' claimed product would have been obvious to one of ordinary skill in the art within the meaning of 35 U.S.C. § 103.

#### DECISION

The rejection of claims 21-23 and 26-30 under 35 U.S.C. § 103 over the combined teachings of Molenaar, EP '824, PCT '377 and GB '637 is affirmed.

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<sup>1</sup> A discussion of Molenaar and GB '637 is not necessary to our decision.

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No time period for taking any subsequent action in  
connection with this appeal may be extended under 37 CFR  
§ 1.136(a).

AFFIRMED

<i>Terry J. Owens</i>	)	
TERRY J. OWENS	)	
Administrative Patent Judge	)	
<i>Romulo H. Delmendo</i>	)	
ROMULO H. DELMENDO	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
<i>Beverly A. Pawlikowski</i>	)	INTERFERENCES
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Administrative Patent Judge	)	

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